

WHAT IS CLAIMED IS:

1. A scroll fluid machine comprising:

a low-pressure stage compression part for compressing a fluid sucked in from an outside between mutually overlapping wrap portions of two scroll members performing a relative orbiting motion; and

a high-pressure stage compression part for compressing the fluid sucked in from said low-pressure stage compression part between mutually overlapping wrap portions of two scroll members performing a relative orbiting motion;

wherein the scroll members in said low-pressure stage compression part have a larger radial gap between said wrap portions than that of the scroll members in said high-pressure stage compression part.

2. A scroll fluid machine according to claim 1, wherein the scroll members in said high-pressure stage compression part provide a higher value of pressure rise than that provided by the scroll members in said low-pressure stage compression part.

3. A scroll fluid machine according to claim 1, wherein said wrap portions of the scroll members in said high-pressure stage compression part have a smaller wrap height than that of said wrap portions of the scroll members in said low-pressure stage compression part.

4. A scroll fluid machine according to claim 1, wherein said low-pressure stage compression part comprises a low-pressure stage fixed scroll member and a low-pressure stage

orbiting scroll member, and said high-pressure stage compression part comprises a high-pressure stage fixed scroll member and a high-pressure stage orbiting scroll member, wherein said low-pressure stage scroll members and said high-pressure stage scroll members are provided spaced away from each other.

5. A scroll fluid machine according to claim 4, further comprising:

an electric motor having a single output shaft;

wherein said low-pressure stage orbiting scroll member and said high-pressure stage orbiting scroll member are provided respectively at both ends of said output shaft.